

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005709**Date Inspected:** 04-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Shen Fu You**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Erik Prue was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA Inspector observed and/or found the following:

Segment 3AE: QA Inspector randomly observed ZPMC qualified welder ID #049399 welding Seg-014-047 side plate to corner beam assembly side plate weld repair. Welder was observed welding in the 4G (overhead) position utilizing the Shielded Metal Arc Welding (SMAW) process. QA Inspector observed the ZPMC QC Inspector Geng Wei verifying welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector with QC Inspector observed parameters taken for welder # 049399 as follows: preheat temperature to be at 178°C and measured the welding parameters to be 185 amps, 25.3 volts, a travel speed of 120 mm/min. Welding parameters verified by QA Inspector appear to be in general compliance with the approved WPS-3435-SMAW-4G (4F) and critical welding repair B-CWR-292-Rev-1.

Segment 4BW: QA Inspector received notification that segment 4BW welds and base material had been visually inspected by ABF and ZPMC QC personnel and was ready for QA visual inspection. QA Inspector on 03 March, 2009 had inspected the welds and base material between panel points 27 and 28 and marked twenty four (24) indications (porosity, rollover, arc strikes, weld spatter, slag, unacceptable weld profile, and base material mishandling) for repair. QA Inspector asked ABF QC Man Kit Le if areas marked the prior day for repair had been repaired and reinspected. ABF QC Inspector explained some of the indications were repaired but he was still following ZPMC workers inspecting the remaining repair. QA Inspector informed ABF and ZPMC QC Inspectors that QA Inspector will verify areas marked for repair between panel points 27 and 28 and will continue visual

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inspection verification on panel point 26 and the outside top, sides, and bottom of lift. QA Inspector performed visual verification on segment and marked seventeen (17) indications throughout segment for repair. ABF QC Inspector and ZPMC QC concurred with QA Inspectors findings and marked indication areas themselves. QA Inspector performed a third (3) visual inspection verification of segment welds and base material after ZPMC and ABF QC Inspection. QA Inspector found segment welds and base material appear to meet the requirements of the contract documents and AWS D1.5 (02).

Unless otherwise noted, all work observed on this date appears to be in general compliance with the applicable contract documents.

### Summary of Conversations:

Conversations noted above in items observed.



### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Prue,Erik	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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